



RESEARCH BRIEF

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Vanessa Gonzalez Hernandez, PhD

Miami-Dade County Public Schools: 2020-2021 Student Performance in the International Baccalaureate Program

Results at a Glance

This Research Brief summarizes the performance of Miami-Dade County Public Schools (M-DCPS) students participating in the International Baccalaureate (IB) program. The IB program was offered at six M-DCPS high schools in 2020-2021. Over 2,900 assessments were completed by M-DCPS students in 29 subject areas in 2020-2021. The number of IB assessments completed in M-DCPS increased slightly from 2019-2020 to 2020-2021. Overall, the percentage of IB assessments receiving passing scores increased by two percentage points from 2019-2020 to 2020-2021. At the conclusion of the 2020-2021 school year, 93% of eligible M-DCPS students received IB diplomas, an increase of five percentage points from 2019-2020.

The International Baccalaureate (IB) program is a rigorous pre-university curriculum and examination program that emphasizes the development of students' intellectual, personal, emotional, and social skills. The IB program provides students with a broad general education while offering specialization based on students' interests and plans. The IB program is recognized at colleges and universities throughout the United States and worldwide.

Three IB programs span the years from kindergarten to pre-university. The programs can be offered individually (the Primary Years Program for students aged 3-12, the Middle Years Program for students aged 11-16, and the IB Diploma Program for students aged 16-19) or as a continuum. A fourth program, the Career-Related Program, is designed to address the needs of students aged 16-19 who are engaged in career-related education. This report focuses on the IB Diploma Program that is offered at M-DCPS senior high schools.

The IB Diploma Program (DP) is a two-year liberal arts curriculum designed to promote an understanding of global citizenship. The program encourages students to become critical and compassionate thinkers and informed participants in local and world affairs. The DP curriculum is made up of three core elements and six subject groups. The three core elements are:

- The Theory of Knowledge course, assessed through an oral presentation and a 1,600-word essay, encourages students to reflect on the nature of learning and different kinds of knowledge;
- The extended essay, an independent, self-directed research project, culminates in a 4,000-word paper; and

- A Creativity, Action, Service (CAS) component requires students to take part in a range of experiences and at least one project.

The six subject groups are:

- Studies in language and literature;
- Language acquisition;
- Individuals and societies;
- Sciences;
- Mathematics; and
- The arts.

Students may study an additional course in science, individuals and societies, or languages instead of a course in the arts. Each student takes three to four subjects at the *Higher Level (HL)* and the remaining subjects at *Standard Level (SL)*. Students taking courses at HL are expected to demonstrate a greater body of knowledge, understanding, and skills.

Descriptions of courses in the first two subject groups are provided below.

- Studies in language and literature courses are as follows:
 - Language A: Literature – These courses introduce students to the analysis of literary texts. Courses are available in 55 languages.
 - Language A: Language and Literature – These courses introduce the critical study and interpretation of written and spoken texts from a wide range of literary and non-literary genres. Courses are available in 17 languages.
 - Literature and Performance – These courses explore the relationship between literature and theatre. Courses are automatically available in English and, by special request, in Spanish and French.
- Language acquisition courses are as follows:
 - Language Ab Initio – These courses are for beginners (students who have little or no previous experience of learning the language they have chosen).
 - Language B – These courses are intended for students who have some previous experience of learning the language.
 - Classical Languages (Latin or Classical Greek) – These courses provide opportunities for students to study the language, literature, and culture of ancient Rome or Greece.

Student Assessment in the 2019-2020 and 2020-2021 School Years as a Result of COVID-19

Beginning in 2020, as a result of the COVID-19 pandemic, IB made the decision to cancel in-person examinations to ensure student safety. IB created a model that used student coursework,

school-predicted grades, and school context for final grade award. The school context was not based on previous cohorts' performance but on the relationship between predicted grade accuracy and performance in coursework versus examination components and final outcomes. IB assessment specialists and Chief Examiners applied standards during grading to promote fairness. IB examiners evaluated all student work instead of only a sample as is normal practice.

IB Assessments in the 2019-2020 and 2020-2021 School Year

As usual, assessments were scored on a scale of 1 to 7 for each subject, with 7 being the highest. A score of 4 is considered a passing score on an IB assessment. Students must earn a total of 24 points on their six IB assessments in order to receive the IB diploma, subject to certain minimum levels of performance across all components of the program and satisfactory completion of the CAS requirement. Students can also be awarded up to three additional points toward the overall diploma score for their combined results on the Theory of Knowledge course and the extended essay.

Six M-DCPS high schools offered the IB program during the 2020-2021 school year: Coral Gables Senior, Coral Reef Senior, John A. Ferguson Senior, Miami Beach Senior, North Miami Senior, and South Dade Senior. This Research Brief includes 2019-2020 and 2020-2021 data on these six M-DCPS schools. Tables included in this report provide data on the number of IB assessments completed and the percentage of assessments receiving passing scores by subject area across all six M-DCPS IB schools, by school across all subject areas, and by school and ethnicity across all subject areas. The number and percentage of participating students earning diplomas in the District and at each IB school are also provided. The reader should note that results are not reported if fewer than ten assessments were taken.

Participation in Assessments

- In 2020-2021, M-DCPS students completed 2,960 IB assessments. The number of assessments completed by M-DCPS students increased by 11 assessments from 2,949 completed in 2019-2020.
- M-DCPS students took IB assessments in 29 subject areas in 2020-2021. Overall, most IB assessments were taken in Biology, English A Language & Literature, History, Mathematics: Applications and Interpretations, and Spanish B in 2020-2021. Over half (59%) of IB assessments taken by M-DCPS students were taken in these five subject areas.
- The greatest number of IB assessments was completed at Coral Gables Senior in 2020-2021 (929 assessments).
- From 2019-2020 to 2020-2021, the number of IB assessments completed increased at four of the six M-DCPS IB schools: Coral Reef Senior, John A. Ferguson Senior, Miami Beach Senior, and North Miami Senior. The number of IB assessments completed at the other two M-DCPS IB schools decreased.

- The District's Hispanic students completed 68% of all IB assessments in 2020-2021. White students completed 22% of IB assessments, Black students took 6%, and students classified as "Other" (Alaskan Native, American Indian, Asian, Pacific Islander, and Multiracial categories) took 4%.
- From 2019-2020 to 2020-2021, the percentage of assessments completed by all ethnic groups remained approximately the same.

Assessment Results

- Overall, the percentage of IB assessments receiving passing scores in M-DCPS increased by two percentage points, from 90% in 2019-2020 to 92% in 2020-2021.
- The 2020-2021 subject areas in which the highest percentages of M-DCPS IB assessments received passing scores (98%+) were Film, German B, Italian B, Mathematics: Analysis and Approaches, Spanish B, and World Religions. The subject areas in which the lowest percentages of IB assessments received passing scores were Biology and Visual Arts (69% and 68%, respectively).
- Coral Reef Senior and Miami Beach Senior had the highest percentages of IB assessments receiving passing scores (96% and 93%, respectively) in 2020-2021.
- From 2019-2020 to 2020-2021, the percentage of assessments receiving passing scores increased or remained the same at four M-DCPS IB schools.
- In 2020-2021, 95% of IB assessments taken by M-DCPS White students, 91% of assessments taken by Hispanic students, 80% of assessments taken by Black students, and 94% of assessments taken by students classified as "Other" received passing scores.
- From 2019-2020 to 2020-2021, the percentage of assessments receiving passing scores increased by two percentage points for White, Hispanic, and Other students, but it decreased by five percentage points for Black students.

Diploma Results

- In order to award a diploma or certificate following the cancellation of all external written components of IB examinations for the 2020-2021 school year, the IB implemented the same model for awarding diplomas as the 2019-2020 school year. In addition to the submitted student coursework and predicted grades from teachers, the IB used school context to arrive at the subject grades for each student. The school context was based on the relationship between predicted grade accuracy, performance in coursework versus examination components, and final outcomes. Then, these grades were converted into points that contributed to the student's overall Diploma Program results.
- A total of 447 M-DCPS students, or 93% of eligible students, received IB diplomas at the conclusion of the 2020-2021 school year. The percentage of the District's eligible IB

program students receiving an IB diploma increased by five percentage points from 2019-2020 to 2020-2021.

- Of the six M-DCPS IB schools, Miami Beach Senior had the highest percentage of eligible students receiving IB diplomas (100%) in 2020-2021.
- From 2019-2020 to 2020-2021, the percentage of students receiving IB diplomas increased at all six M-DCPS IB schools.

Table 1. Numbers of IB Assessments Completed and Percentages of IB Assessments Passed by Subject Area, 2019-2020 and 2020-2021, M-DCPS, All IB Schools Combined

Subject Area	# of Assessments Completed		% of Assessments Passed	
	2019-2020*	2020-2021*	2019-2020*	2020-2021*
Biology	312	340	64	69
Business Management	11	5	91	N/A
Chemistry	174	154	80	86
Computer Science	7	7	N/A	N/A
Dance	23	13	96	92
English A Language & Literature	116	273	100	97
English A Literature	372	216	100	97
Environmental Systems and Societies	N/A	39	N/A	74
Film	22	12	100	100
French AB	1	N/A	N/A	N/A
French B	102	84	91	94
Geography	2	15	N/A	80
German B	20	14	100	100
History	474	478	92	95
Italian AB	1	1	N/A	N/A
Italian B	14	14	86	100
Mathematics: Applications and Interpretations	251	328	94	92
Mathematics: Analysis and Approaches	232	161	86	98
Music	N/A	1	N/A	N/A
Philosophy	7	63	N/A	95
Physics	16	22	69	77
Portuguese B	8	8	N/A	N/A
Psychology	250	180	95	95
Social and Cultural Anthropology	86	91	100	100
Spanish A Language & Literature	15	12	100	92
Spanish AB	15	5	67	N/A
Spanish B	330	330	96	98
Theatre	24	27	83	93
Visual Arts	37	19	51	68
World Religions	27	48	100	98
Total, All Subjects	2949	2960	90	92

*Note: In 2019-2020 and 2020-2021, in-person paper exams were cancelled due to the COVID-19 pandemic. Assessments were conducted by IB based on student work and other evidence.

Table 2. Numbers of IB Assessments Completed and Percentages of Assessments Passed, by School, 2019-2020 and 2020-2021

School	# of Assessments Completed		% of Assessments Passed	
	2019-2020*	2020-2021*	2019-2020*	2020-2021*
Coral Gables Senior	1002	929	87	91
Coral Reef Senior	820	854	98	96
John A. Ferguson Senior	583	595	87	92
Miami Beach Senior	296	381	93	93
North Miami Senior	124	128	86	78
South Dade Senior	124	73	65	70
Total, All IB Schools	2949	2960	90	92

*Note: In 2019-2020 and 2020-2021, in-person paper exams were cancelled due to the COVID-19 pandemic. Assessments were conducted by IB based on student work and other evidence.

Table 3. Numbers of IB Assessments Completed and Percentages of Assessments Passed, By Ethnicity, 2019-2020 and 2020-2021

School		White		Black		Hispanic		Other	
		Number Taken	Percent Passed	Number Taken	Percent Passed	Number Taken	Percent Passed	Number Taken	Percent Passed
Coral Gables Sr	2021*	214	93	10	90	697	90	8	N/A
	2020*	220	87	22	82	747	87	13	77
Coral Reef Sr	2021*	170	95	30	93	574	96	80	98
	2020*	235	98	22	95	494	98	69	99
John A. Ferguson Sr	2021*	35	100	23	74	524	92	13	92
	2020*	18	100	12	75	515	87	38	87
Miami Beach Sr	2021*	212	96	8	N/A	143	90	18	83
	2020*	160	93	11	100	119	93	6	N/A
North Miami Sr	2021*	5	N/A	90	77	33	82	.	.
	2020*	1	N/A	98	83	20	100	5	N/A
South Dade Sr	2021*	4	N/A	6	N/A	52	65	11	82
	2020*	6	N/A	4	N/A	105	64	9	N/A
Total, All Schools	2021*	640	95	167	80	2023	91	130	94
	2020*	640	93	169	85	2000	89	140	92

*Note: In 2019-2020 and 2020-2021, in-person paper exams were cancelled due to the COVID-19 pandemic. Assessments were conducted by IB based on student work and other evidence.

Table 4. Numbers and Percentages of Students Receiving IB Diplomas, by School and M-DCPS Overall, 2019-2020 and 2020-2021

School	Number of Students Eligible for IB Diplomas		Number of Students Receiving IB Diplomas		Percent of Students Receiving IB Diplomas	
	2019-2020*	2020-2021*	2019-2020*	2020-2021*	2019-2020*	2020-2021*
Coral Gables Senior	156	159	128	144	82	91
Coral Reef Senior	134	139	129	135	96	97
John A. Ferguson Senior	93	94	86	89	92	95
Miami Beach Senior	51	55	47	55	92	100
North Miami Senior	21	23	14	16	67	70
South Dade Senior	19	10	13	8	68	80
Total, All IB Schools	474	480	417	447	88	93

*Note: In 2019-2020 and 2020-2021, diploma designation was conducted by IB based on student work and other evidence.

Summary

This Research Brief summarized the performance of M-DCPS students participating in the IB program. Six M-DCPS high schools offered the IB program during the 2020-2021 school year: Coral Gables Senior, Coral Reef Senior, John A. Ferguson Senior, Miami Beach Senior, North Miami Senior, and South Dade Senior.

Over 2,900 assessments were completed by M-DCPS students in 29 subject areas in 2020-2021; the number of IB assessments completed in M-DCPS increased by 11 assessments from 2019-2020 to 2020-2021. The greatest number of IB assessments were completed at Coral Gables Senior. Districtwide, 68% of IB assessments were completed by Hispanic students, 22% were completed by White students, 6% were completed by Black students, and 4% were completed by students classified as “Other.”

The percentage of M-DCPS IB assessments receiving passing scores increased by two percentage points to 92% from 2019-2020 to 2020-2021. Coral Reef Senior and Miami Beach Senior had the highest percentages of IB assessments receiving passing scores. White students had the highest percentage of IB assessments receiving passing scores in 2020-2021, followed by “Other” students, Hispanic students, and Black students.

Overall, 93% of M-DCPS’ eligible students received an IB diploma at the conclusion of the 2020-2021 school year. The percentage of eligible students earning an IB diploma increased by five percentage points from 2019-2020 to 2020-2021. Of the six M-DCPS IB schools, Miami Beach Senior had the highest percentage of eligible students receiving IB diplomas in 2020-2021.